

122. The method of claim 107, wherein said method further comprises determining a workload weight distribution for each of said storage devices or partitioned group of storage devices based at least in part on said monitored number of outstanding I/O requests for each storage device or partitioned group of storage devices.

5

123. An I/O resource management system capable of managing I/O resources in an information delivery environment, comprising:

10

an I/O resource model capable of modeling utilization of at least one of said I/O resources; and

an I/O resource manager in communication with said I/O resource model, said I/O resource manager being capable of managing at least one of said I/O resources based at least in part on said modeled utilization.

15

124. The system of claim 123, wherein said I/O resource model is capable of modeling utilization of at least one of said I/O resources based at least in part on at least one of said system I/O performance characteristics associated with said I/O resources.

20

125. The system of claim 124, wherein the value of at least one of said system I/O performance characteristics is estimated.

25

126. The system of claim 124, wherein said I/O resource management system further comprises at least one I/O resource monitor in communication with at least one of said I/O resource manager or said I/O resource model, said I/O resource monitor being capable of monitoring the value of at least one of said system I/O performance characteristics.

30

127. The system of claim 123, wherein said I/O resources comprise at least one of file system resources, storage system resources, or a combination thereof.

128. The system of claim 123, wherein said information delivery environment comprises delivery of continuous media data from an information management system in communication with said I/O resource management system; wherein said I/O resources comprise I/O capacity and buffer memory space of said information management system; and wherein said I/O resource manager is capable of balancing said I/O capacity with said buffer memory space to ensure uninterrupted delivery of said continuous media data.

129. The system of claim 128, wherein said information management system comprises a storage system, said storage system including said I/O resources and having at least one storage device or at least one partitioned group of storage devices.

130. The system of claim 129, wherein said information delivery environment comprises delivery of continuous media data from said information management system to a network; and wherein said information management system comprises a content delivery system configured to be coupled to a network.

131. The system of claim 130, wherein said content delivery system is configured to be coupled to a network at an endpoint of said network.

132. The system of claim 129, wherein said I/O resource manager is capable of allocating at least one of said I/O resources between background system I/O activities and delivery of said continuous media data.

133. The system of claim 132, wherein said I/O resource management system further comprises at least one I/O resource monitor in communication with at least one of said I/O resource manager or said I/O resource model, said I/O resource monitor being capable of monitoring background system processing activity; and wherein said I/O resource manager is capable of allocating said at least one of said I/O resources between background system I/O activities and delivery of said continuous media data based at least in part on said monitored background system processing activity.

134. The system of claim 129, wherein said I/O resource manager is capable of at least one of performing I/O admission control, determining read-ahead size, or a combination thereof.

135. The system of claim 128, wherein said I/O resource model comprises an analytical-based resource model.

136. The system of claim 128, wherein said I/O resource management system further comprises at least one I/O resource monitor in communication with said I/O resource model; and wherein said I/O resource model comprises a measurement-based resource model.

137. An I/O resource management system capable of managing I/O resources for delivery of continuous media data to a plurality of viewers from a storage system including at least one storage device or at least one partitioned group of storage devices, said system comprising:

an I/O resource monitor, said I/O resource monitor being capable of monitoring at least one of said system I/O performance characteristics associated with said I/O resources;